

Velocette MOV Diary – Started 24th August 2017

Tuesday 31st July 2018

End of the Saga, the MOV was sold this evening to a friend in the local VMCC section who has always expressed an interest in buying it. The bike had sat for several months in one of my sheds as the riding season put a priority on getting my other bikes fettled. Though tidy and running, the MOV needed more work and potentially serious money to significantly improve it to top condition. Things like a girder fork rebuild, wheel rebuilding and replacement of some parts by more original items. I brought it up to the workshop a few days ago and checked it all over. My final conclusion was that my heart was no longer in the project. I had enjoyed the challenge of getting it to its present state but I am not a concours person and would get no real pleasure from taking it forward quite apart from the costs which I felt would outweigh the value they might add. In the end I decided it was time to move it on. Its new owner knows its faults but he is unlikely to ride it seriously, more likely it will become part of his collection. The end result was satisfactory from my point of view; I got back everything I had spent on the bike and its restoration and a reasonable profit to cover my labour; plus I had a great deal of fun during the project and made contact with a lot of nice people.

I still have the MAC engine which should be advertised in the next issue of Fishtail. The magneto and the ATD unit I bought for the MAC engine will be kept as spares for the Venom.



From this (August 2017)



To this (May 2018)

Friday 25th May 2018

About a week ago a chap rang me about an advert I had placed in Fishtail for a timing cover for the MAC engine. It turned out to be the later plain type rather than the earlier embossed type but as it was very reasonably priced I decided to buy it. I can always sell it if/when a better one comes along. It arrived yesterday and is in excellent condition. This spurred me into action and I have now fully built the MAC engine. It is not a definitive rebuild and will need to be stripped and rebuilt properly with gaskets sealant. The object was to establish that I now had a full set of parts and that it all went together properly. I did have an issue with the inlet rocker assembly which was resolved by shortening the pushrod a little and grinding a small amount from the top of the tappet adjuster to stop it fouling the rocker box. Anyway, the job is done for now and it means that I won't accidentally lose any of the bits which could well have happened whilst it was dismantled. The new timing cover also needed a small mod to block an extra oil hole not required on earlier engines. That done it fitted perfectly. The engine and the box of surplus MOV/MAC bits can now be moved from the workbench to make room for another project.

Monday 7th May 2018

I took the MOV for a spin round the block after unloading it from the van where it has been stored since I took it to Shepton. It went ok but seemed a bit down on power compared to last time it was ridden. It pulled up my test hill at 40mph easily enough but did not seem to have a lot in reserve. More worrying was the funny growling noise it made in neutral when ticking over. The noise went when the clutch was pulled in so I assume it's gearbox related. I didn't have the time to investigate it further so that's another job on the list. However, I did manage to fix the led warning light which was a broken wire on one of the resistors (my cr*p soldering I suspect).

The other worrying thing was the poor front brake action. This seems fine when you push it around the garage but on the road needs a lot of pressure for not a lot of stopping power. The linings were replaced and matched to the drum so it ought to work fine. Hopefully its just a case of bedding the linings in. Somehow the poor old MOV has been relegated to back burner status and I should really give it some quality time.

This evening I stripped the MAC engine, removed the pump and swapped the pump drive gear for a single start type. Looking more closely at the double start gear I removed I can see that some of its teeth are damaged and needed dressing. While it was all apart I modified the oil pump scroll gear by grinding a flat on one side. This enables the gear to be replaced without having to split the crankcases. I have also fitted the valves in the cylinder head so that is now complete. I believe that I now have all the necessary parts to finally build the engine, just need to find the time.

Friday 20th April 2018

Things have moved on encouragingly. Yesterday I obtained from Chris Wiggins a double-start oil pump scroll gear and also a single start oil pump gear. I now have the choice of pump style when I come to rebuild the engine. Though I now have (as far as I am aware) all the necessary parts, what I don't have is the time to do a complete strip and rebuild. This will have to wait for a while.

The misbehaving engine has been resolved and was mostly down to me. I recently replaced the plug with a long reach type as I was convinced this was the type needed. Clearly this was wrong because when I removed the plug after the engine refused to start, the side electrode was actually

touching the centre electrode so must have been hit by the piston. Replacing it with a standard reach plug has restored normal behaviour. I also tightened the head bolts and there is now no sign of leakage from that joint. The battery has been replaced and the charging system is functioning correctly. I still need to replace the suspect fuse holder but the tank will have to come off for that so it will have to wait. I also noted that my led warning light to remind me the battery is live has failed. Not sure if it's a wiring fault or a blown led. This also need the tank off to investigate so will have to wait.

I plan to take the MOV to the VMCC autojumble at Shepton Mallett next Saturday to show it to David Childs. I am hoping that this will prompt him to find the remaining bits he keeps promising.

Tuesday 17th April 2018

I am afraid the MOV has taken a back seat now that the riding season has arrived and much the same applies to the MAC engine. In fact, in some respects the MOV project may have moved backwards. Last week when I started it up to show someone it would not run smoothly, the engine was 8 stroking as though it was far too rich and I noticed smoke coming out of the head joint. Clearly some attention is needed in that area, hopefully just to tighten down the head nuts. The battery also appeared to be flat and it was not charging. I removed the battery and checked it prior to putting it on charge and found it was around 5 volts, low but not to the point where the lights etc would not work. Anyway, I put it on charge and its now back to 6.3v. My suspicion is that the fuse holder which is on the earth side is playing up again and I have a new one in stock to be fitted. I now have my own wet sump valve so this too can be fitted when the MOV finally makes it into the workshop. This may be a while.

Progress on the MAC engine has also stalled, I did buy the valve collets at the same time as I bought the wet sump valve from Grove so in theory I can build the cylinder head. The oil pump scroll gear remains an issue but I heard from a local Velo Club member who may have the part I need – we are due to meet at a VMCC gathering on Thursday.

Wednesday 28th March 2018

I bought back from my visit to Exeter a couple of boxes of assorted carburettors donated by John Hill. Today I sorted through the boxes. Sadly there were no complete carbs of anything like the size needed for the MAC engine (nominally 15/16") and most of the stuff was in quite poor condition. However, I was able to mix & match various items to produce what should be two usable carbs. One is 15/16" type 276 and the other, which is in quite good condition is a 1" type 276.

Sunday 25th March 2018

No major advances on the MOV project. The MOV still has not turned a wheel for over a week. I did start it when showing it to a friend yesterday and there was absolutely no smoke so it looks as though the new wet sump device is doing its job. Still no sign of a double start scroll gear so the MAC engine is still on hold but I have purchased a Lucas K1f magneto and a Lucas ATD from a chap in Shrewsbury. They have been picked up by my son who, handily, lives in Shrewsbury and he is bringing them down in a couple of weeks.

The clocks went forward today and it was warm dry and sunny so perhaps Spring has finally arrived and I can get some serious test riding on the new bikes.

Thursday 15th March 2018

Most of the problems with the MOV have been sorted; the exception is the dragging clutch but to be fair I have not even looked at that yet. The charging problem was a poor connection in the fuse holder. Fitting the correct longer type of fuse seems to have fixed that and the dynamo now charges well. The wet sumping is hopefully fixed. Oliver Presswood kindly loaned me one of the later external Velo wet sump valves and I was able to install this successfully. It needed a new connector pipe to clear the top of the gearbox but that was all. In the 3 days since the valve was installed, the level in the oil tank has not dropped at all. Due to other commitments I have not been able to ride the MOV again and its currently wrapped up in the bottom garage until the winter freeze which came back again has cleared.

The MAC engine has also advanced well. Wayne Coulthard kindly provided me with a valve and a pushrod so I was able to do a test assembly of the top end. After a slight hiccup caused by a misplaced head gasket, all went together well. However, I now find thanks to a chat with Dai Gibbison that my engine has a double start oil pump and a single start scroll gear. First I need to find the correct scroll gear – feelers are out for this. Then the entire engine will have to be dismantled and rebuilt as you cannot remove a scroll gear with the oil pump in place. Actually, that is not quite true – if you grind a flat on the side of the scroll gear flange, it will slide past the oil pump. Of course you have to grind this flat before you assemble the engine!!!

So like the MOV, the MAC engine is now on the back burner but there is light at the end of the tunnel.

Thursday 8th March 2018

Things are moving on nicely. Bill Harley set the refurbished carb back on Monday and I fitted it next day. The bike started first kick and the tickover is now controllable – result. Must say he made a very good job of the refurb and even true up the manifold face to remove the bowing. On Wednesday I finally plucked up the courage to take the MOV out for its first ride. First trip was only to the end of the road and back after which I needed to make a couple of minor adjustments but otherwise found nothing seriously amiss. Second trip was round my test loop maybe a mile or so which includes an incline. I didn't take the bike over 40mph but it pulled this up the hill with plenty in reserve. All was well until we got home at which point the engine stalled and would not restart. A new plug fixed the problem, the old one was very black almost certainly due to the amount of oil it has had to cope with from the wet-sumping.

Overall I was well pleased with the way it went. All the gears selected and stayed selected with no undue whining. The engine sounds fine on the move and seems to burn little if any oil. Neither were there any serious signs of oil leakage at the end of the testing. The front suspension worked ok with my rubber band mod and it steered ok though a bit ponderous on the roundabout. The fact that there was only 12 psi in the front tyre and 18 in the rear may have had a bearing on this – both tyres now pumped up! Three things need attention before the next ride. Firstly the bike has stopped charging and the battery is flat. Secondly clutch is dragging a bit when trying to find neutral

but works fine otherwise – I may never fix that it is a Velo after all. Thirdly, the wet sumping is a real pain, I have to drain the sump every time I want to use the bike and sooner or later this is going to trash the thread in the crankcase. I am investigating the fitting of a an external anti-wetsump device as used on the later models. I will need something like this in any event as the MAC crankcases are the later type which have no internal wet sup fitment.

On the subject of the MAC engine, a box of bits arrived from Dai Gibbison. I now have one pushrod a decent rocker box for which I have now made fixing bolts. I have also fitted the correct bush to the idler gear so that the spacer is no longer needed. This required some engineering as the bush needed to be reamed to size for the spindle and it needed a spacer to widen the shoulder against which the gear abuts. Both quite enjoyable tasks though I am still trying to ascertain why the second was necessary. The hunt for spares is now down to a pushrod and a valve plus a few minor items in the consumables category which I will buy new from VSL or Grove.

Thursday 1st March 2018

Bitterly cold weather has limited the attraction of working in the garage so not lot to report over the past two weeks. I did try the monobloc carb but the bike did not want to run properly on it. However, it did establish that the tickover speed issue is 99% likely to be carb as it was possible with the monobloc to get the speed right down even if it was not reliable. I have found a guy in the Midlands who refurbishes older carbs – he did some for a couple of local Scott owners. I sent him the 275 last week so hopefully it will be back soon.

A parcel arrived from the guy who sold me the MAC engine with a few of the missing parts so the 'wanted' list is diminishing nicely. Dai Gibbison has found a few other parts and these are now in the post to me as well. Major items missing are a pushrod, an exhaust valve and an engine sprocket. I am hopeful that I can source these without too much difficulty or expense

Perhaps the most exciting development is that the V5c for the MOV finally turned up today and the DVLA website now shows the bike correctly as taxed for road use. Its almost 4 months to the day since I handed the old V5c over at Holt Post office and has needed 4 emails to DVLA and a threat to invoke the formal complaint procedure to get a result.

Monday 19th February 2018

Well one problem is solved; the dynamo is now charging nicely. The issue was an earthing problem. Originally Miller dynamos were plated so that they made a good earth connection to the motor. I painted the body of mine as the plating had long gone and it was quite rusty and I obviously made too good a job of it. As soon as I connected a wire from the cover screw to the engine everything sprang into life. However, it took me an hour of pondering and testing to get there. In part its due to the odd construction of the Miller dynamo and the way the regulator is mounted – piggy back style. There was an earth wire from the regulator to the earth brush on the dynamo itself but no connection to the battery via the engine – now there is. Strange really because thinking back I had to apply exactly the same solution to the dynamo on a BMW R35 I rebuilt about 5 years ago. At the time I never figured out why it was needed.

I wish I could report some progress with the carburettor but that still defeats me. I tried squirting oil over the manifold to see if revealed any signs of air leaks. In theory if there had been, it would

have affected the slow running and the exhaust would have become smokey; neither of those things happened. I also tried screwing the pilot adjuster right in which made the tickover far too rich and lumpy and momentarily it did slow down but then picked up to its previous excessive level. I have found an old 375 monobloc carb which I have stripped and checked over. I plan to try and fit that tomorrow. I doubt it's a long term solution as its pretty rough and the jets and slide are unlikely to be correct but it will be interesting to see if that improves the tickover speed.

In the interim I have been searching Ebay and other internet sites to see what sort of carbs are available but I am reluctant to buy anything until I have proved it really is a carb issue and not something else.

Sunday 18th February 2018

Advances on two fronts. The front mudguard stay is now fitted and looks ok, certainly better than my previous effort. I also gave the bike a clean and polish to get rid of the greasy fingermarks and suchlike and it is now looking quite smart. Major remaining problems are the high tickover and the lack of charge from the dynamo both of which I have yet to investigate let alone resolve.

As a bit of light relief I have started the rebuild of the MAC engine. The crank has been rebuilt with new rollers and trued up. My scribed marks on the flywheel rim worked a treat and it needed virtually no adjustment when I mounted it in the lathe with a dial gauge. The bearings went in fine and needed no shimming which was a bonus and the oil pump also went in smoothly. Though the camshaft drive gears clearly all came from different engines, they did have a correct set of timing marks which was helpful. The only thing not satisfactory is the intermediate gear bush which is too short; these late type cases use a longer intermediate spindle. I have got around it in the short term by using a thrust washer to space it out and everything seems to spin nicely. This part is easy to change without major dismantling so not a priority job nor a barrier to other work. I still have a number of bits to acquire before I can complete the top end so The MAC engine has been put away again for now.

Friday 16th February 2018

Progress has been very slow on all fronts this week as I went down with Flu on the same day I did my last update and then managed to pass it to Mrs F. Today I finally felt well enough to spend some time in the garage and some fresh enthusiasm to work on the MOV. My target was to strip down the front end to fit the new bottom spindles I bought last week and to make some extended nuts to provide fixing points for external springs to beef up the soggy fork spring. I also wanted to fit the proper central mudguard bracket I bought from VSL and have another go at the front mudguard bracket.

Well as the photos show I have been successful on the 3 out of the 4 tasks. The central mudguard bracket is fitted as are the new bottom spindles. The rear one was a much better fit than my home made one and has solved two problems. The amount of slack in the bushes is now minimal and the threaded section in the link is more robust so that it can be locked up properly. The front one still needed some shimming on one side but is now pretty good. I made up some extended locknuts and fitted a number of inner tube rubber bands on each side and this has improved the feel and movement of the front end immeasurably.



Not the prettiest solution but it will make the bike safer and nicer to ride until I can get hold of a better fork spring. Wouldn't be surprised if they remained permanent feature. As you can see the mudguard presently has no front but there is one in the wings. I have now fabricated a full loop stay which has been test fitted and is now being painted. It's nowhere near the original in design but looks ok and is a vast improvement on my previous effort. A couple of people have offered me some suitable tubing, and a pipe bender, to make a better version which is kind. If an original one does not turn up over the next few months I may try this option but I think other jobs have a higher priority for now,

Good progress on the MAC engine as well though some concerns about the possible incompatibility of some of the parts; more on this later. John Hill has kindly sent me a roller main bearing (the one that came with it though in good condition, were both ball races). I have ordered a few of the smaller bits needed to complete a bottom end rebuild from VSL and they arrived today. The cylinder head and barrel have both cleaned up nicely been sprayed with BBQ paint. I pulled the gudgeon pin from the piston and tried it in the conrod and there is virtually no wear in the small end bush so that's one thing I don't have to replace. The flywheels have been split and with a new set of rollers, I think the big end will be ok. Before I split the crank, I scribed lines across the flywheels at several points which should make trueing up the assembly a lot easier. Time will tell.

The rocker box that came with the engine was in poor condition incomplete and was of an earlier design but I have been offered another one which should be with me in a few days. Not critical at the moment as there are a number of things I will need before I can complete a top end rebuild including an exhaust valve, collets and pushrods amongst other items.

The crankcases are from a post war MAC and have a number of differences from the prewar type. This is proving a bit of a nuisance as my plan had been to 'borrow' some of the missing bits from the MOV but for some parts this may not be possible. Research on this matter is ongoing.

Wednesday 7th February 2018

Domestic chores (see the daily blog) have limited garage time and the MOV has been sitting unloved and untouched in the garage since my last update and remains there still. I have ordered a few bits from the Velocette club spares scheme including some new spindles for the girder forks. However, I am waiting to see if David C turns up the correct fork spring and top lug so that both jobs can be done at the same time. I plan to ring him on Friday to check.

In the interim, I have also purchased a collection of bits which purport to be an MAC 350 engine. Investigation at home establishes that a number of parts (expensive ones of course) are either missing or not usable. However, it was relatively cheap as these things go and will provide another challenge to keep me occupied. Out of interest, I compiled a spreadsheet of all the obvious missing bits (there may well be more) and then searched the VSL and Grove websites to see if they were available. Encouragingly most were but the final cost of the bits was over £300 which is more than I paid for the engine. Also this takes no account of repair work of the parts I do have, like rebores, new piston, bigends and suchlike which may prove necessary.

On 4th Feb, I spent the day at the Bristol Bike show at Shepton Mallet. A pleasant day out and a chance to meet Brian Chidgey from Exeter who has kindly helped me out several times during the MOV project. Whilst on the Velocette stand I was able to study the fit of the silencers on an MOV and an MAC. In both cases the fixing straps had very little offset allowing the silencers to fit very close to the rear stand but without fouling anything. Like an idiot I forgot to take my phone so I have no pictorial record but it did confirm my view about the incorrect design of the armours product. I have now written to them to point this out and they have responded as follows:

"Many thanks for your comments we do appreciate feedback be it negative or positive. We will add the bracket situation to our product notes although this is the first time I have encountered this need for adjustment to our pattern which we have used for at least 30 years +

I have been with the company since 1972 so I am also disappointed you have encountered these problems, we really do pride ourselves for our products and service"

Initially I was grateful they had at least acknowledged my email, then I got to thinking about the previous problems with the internal diameter of the silencer and the incorrect size hole in the exhaust pipe bracket. I cannot believe that mine is the first complaint in 30 years!

Monday 29th January 2018

Yesterday I decided it was time to get the MOV back on its wheels as there was little left to do that made its presence on the bike lift essential. This gave me the opportunity to take some better photographs:



You can just about see in the above picture, additional springing for the girder forks. I felt the actual spring I had used was a bit weedy so I have added a series of thick elastic bands cut from an old inner tube. These do seem to help and the links are parallel to the floor when the bike is at rest. I am told this is the normal position. Bouncing it against the front brake still seems to show a rather limited fork movement but they don't seem to be bottoming out. To be truthful, I am not sure what is normal for a girder fork.

I had left the sump drain plug out for a couple of days and whilst there was some oil in the drip tray it was not a huge amount compared with previous checks. I replaced the drain plug and ran the engine which hardly smoked at all. This was encouraging as it looks like the piston and rings are ok. Certainly compression is quite good and I imagine will get better as the rings bed in. Sadly, despite stripping and cleaning the carb the tickover is still too high even though I found nothing obviously wrong. Opinions differ as to the cause. One school of thought suggests it's the timing being too far advanced which is possible I suppose but would normally be indicated by a tendency to kick back – which it never has yet. Most suggest that it's an air leak somewhere and I am working on that theory first as messing with the timing is not my favourite task. The other problem to emerge is the lack of charge from the dynamo. This is not something I will also need to investigate but it's not high on the priority list.



Friday 26th January 2018

I had lunch with John Hill and few friends on Thursday which was very pleasant but best of all, John brought with him the kickstarter that I had inadvertently sent back to Brian Chidgey. It was as I suspected the correct type with a pronounced offset. This morning I fitted it to the bike and all of a sudden my exhaust system problems have gone away. I now have a good ½" of clearance from the silencer even with the system pulled well away from the frame to give a better line. I would still like the silencer bracket to be slimmer and hold the assembly closer to the bike but for the moment I will happily settle for what I have.

The last batch of powder coating was ready this morning so the dynamo inner and outer covers are now fitted and looking very smart as is the correct rear engine plate. It took a bit of judicious filing to get this into place but all is now well.

I drained the sump again and even more oil came out than last time so I have left the plug out for now. I want to be able to start it with a dry sump to see if it still smokes badly. Really the bike is now substantially complete. The only tasks I am aware of are a carb strip to sort out the high tickover speed and the soggy front suspension. To do the former I will need to remove the tank which will allow me to adjust the clutch free play as well. I won't know for sure how big a problem the latter is until I can ride the bike but my gut feeling says its something that has to be fixed. I am

hoping that David C will come up with correct spring and top lug in due course so I can try that. Not looking forward to stripping out the whole front end but if I have to, I will replace the bottom spindles and have another look at one of the links which I suspect has a stripped thread.

Saturday 20th January 2018

Consultation with fellow enthusiasts on the Velocette Forum has indicated that my problem with the exhaust may be the result of having the wrong kick start lever. It seems that the one fitted is from the later bikes and fairly straight. The correct rigid frame k/s levers have a more pronounced crank to clear the silencer so the search is now on for the earlier type. I guess this is just another of those problems you get when you try to build a bike from a pile of bits without knowing if they were ever from the original or even the same type of bike. Inevitably these types of issue only come to light when approaching the end of the project like the front fork spring. On that topic, David C rang up on Thursday evening and we had a chat about progress with the MOV. He is going to search through his collection of spares as he thinks he has the correct spring and its associated lug. Just wish I had known about the k/s at that time as I could have asked him to look out for one of those as well.

The slipping clutch came under the microscope yesterday and despite having read up on the 'approved' procedure, I was totally unable to effect any improvement. Removing the gearbox sprocket showed that the spring carrier (which is the gadget which has to be moved in or out to adjust the clutch) was screwed almost the whole way in effectively pressing on the thrust pins so the clutch was part way open all the time. No wonder I could not adjust the clutch as moving the spring carrier was just moving the whole pressure plate. The only way I could sort things was to use a drift and carefully punch the spring carrier to move it within the pressure plate. Took a while but eventually the clutch started to bite after which the conventional adjustment could be done. The k/s now works properly again and I managed to start the engine and run it briefly. The tickover remains too fast and does not respond to adjustment so another job on todo list is to strip the carb. That means removing the seat and tank so not a quick or easy job. I am going to take a short break from the MOV project as other jobs are piling up.

Thursday 18th January 2018

Major development since the last update was the return of the exhaust system from Armours on Tuesday. They have fixed all the reported problems and I was able to fit it to the bike but a couple of new issues have arisen. Actually, thinking about it they are in fact two aspects of the same issue. The immediate problem was that the kickstart was hitting the silencer. I have got round this in the short term by spacing out the exhaust pipe about $\frac{1}{4}$ " (which is fine) and by using a jubilee clip to pull the system closer to the frame (which is not really desirable). The cause in my view is that the silencer fixing bracket sticks out too far and I can see no obvious solution to this at present. Any attempt to weld a replacement bracket is going to destroy the chrome and look hideous. I really don't want to send it back to Armours but I may have no choice. At present I think the silencer sticks out far too much at the back and the line of the exhaust is curved rather than straight. Fixing the bracket should solve both issues. Very annoying just when I thought the project was close to completion.



One of the petrol taps had defied all my attempts to stop it weeping so I drained the tank and fitted another one which also happened to have an intact filter. This has been in place for 24 hours and is still dry so maybe that's one problem sorted. I have also stripped down the rear end and realigned the support bracket and toolbox. It was trivial in some ways but I know it would have been a constant niggle so it had to be done.

I did attempt to start the bike once the exhaust system was fitted but the clutch is now slipping so badly that it's impossible to get it going. I need to read up the procedure for adjusting the clutch. Possibly just as well that it would not run if the silencer has to go back to Armour's.

Tomorrow I have to collect some powder coated items for one of my other bikes so I will take what I hope to be the last of the MOV items to be painted – the engine plate and the dynamo outer cover.

Monday 15th January 2018

Well the tank is fitted and though it's a bit mucky from greasy fingers I managed to avoid any scratches or chips. I had to clean out the threads for the petrol taps, fortunately I managed to find a ¼" BSP tap in my toolbox. I originally thought that the petrol pipe David gave me was for an MAC but in fact with some 'adjustment' I managed to get it all to line up. Not happy about a couple of the union nuts which are showing signs of stretching but it seems ok. Flushed with success I put a litre of petrol on the tank and so far there don't seem to be any major leaks. There is a bit of dampness some of which is from over-enthusiastic tickling on my part and some of which is around the petrol taps. The latter will probably seal up once the corks have wetted out.

Couldn't resist kicking it over though this was not easy with the clutch slipping a little. To my surprise it coughed a couple of times so I adopted the approved Velo starting technique and it

started and ran. Smoked like a trooper and sounded like a machine gun as there is no exhaust system, but it RUNS and sounded very quiet mechanically. There was oil leaking from the feedpipe to the rockers, which was good in some ways as it proved the oil was getting that far. I have sealed that with some PTFE tape for now. Apart from that I couldn't see any other major issues so the sooner Armours get my exhaust system fixed and returned the better.

Switching to the electrics, the horn has always been a bit feeble as it was a 12v item (battery is now 6v). I found a 6v horn in the spares box which seems to work ok so its undergoing some tlc to smarten it up. The other thing I want to address is the rear mudguard bracket which supports the toolbox. I realised belatedly that I had installed it in the wrong position and it will always grate so I am going to move it. This requires the back wheel out so that I can get at the fixing screws which in turn means getting the bike in the correct position on the bike lift and removing the back part of the mudguard. Tedious but hopefully straightforward.

Saturday 13th January 2018

I solved the problem of the knee grips by drilling through the rubber using holes the holes in the mounting plates as guidance. These I opened out to just over 5/16" and made up 4 threaded sleeves from old 5/16" bolts. You can just about see the result in the picture. Having found a solution, I hope to find some 5/16" brass rod to make a new set which won't rust. The other option is to put rubber bungs in the holes to cover the bolt heads. In fact that might be a better idea as it will stop water getting inside as well.



I have also fabricated a strap which bolts underneath the tank and provides support to stop it splitting. The next job is to actually install the tank on the bike so that I can fit the taps and make up

the fuel lines. Bit nervous about this stage as I am convinced I am going to scratch the tank under the headstock where it's a very snug fit. Looking at the above picture I realise I need to add a pump to the wishlist.

The rear engine mount arrived in the post today. It looks fine and I will get it powder coated along with the dynamo outer cover first before fitting it. I should have some bits to collect from TPCS for the Guzzi shortly so I will wait until they are ready.

As I was in fabrication mode, I located a suitable piece of alloy sheet and made up a door for the gearbox sprocket cover. It should be domed according to the spares book but in fact the sprocket and securing nut are well recessed so I have made it flat for now. I will have a word with Mick the welder to see if he could panel beat a dome into the cover for me.

Friday 12th January 2018

The 'new' inner dynamo cover arrived yesterday and my initial reaction was disappointment as it did not seem to fit any better than the first one. However, detailed examination revealed that it had been repaired at some point and the weld had not been ground back sufficiently. A few minutes with the angle grinder and a file made all the difference and the cover slotted into place perfectly. Even more pleasing, the outer cover I already had fitted the new inner cover perfectly as well. Both covers needed a bit more work which I have now done; all that remains is to paint the inner and have the outer cover powder coated. The engine plate is also now on its way so that's two more items off the wishlist. Just to complete a good day, I had a call to say that the petrol tank was finished and I drove down to Wells this morning to collect it. I'll post a picture tomorrow, it really does look good. I have the original rubber knee grips for the tank which are in quite usable condition as well as the metal plates to which they attach. Trouble is the rubber is rock hard and though it does soften in hot water, they harden off very quickly before I can get them fitted. After a number of attempts I gave up as I don't want to risk damaging the tank. Tomorrow I am going to try a different way of attaching them.

Tuesday 9th January 2018

The latest issue of Fishtail came out over the weekend and I have had a number of emails offering me various parts which I had advertised for. Mostly they were for the dynamo pulley which I had sorted after a previous advert but nice to see such a big response. I was also offered several dynamo covers though it was not always clear if they were the correct ones. One guy helpfully included a picture of his spare inner cover with a ruler so I could clearly see the dimensions. This suggested that the outer covers are pretty much all the same size with minor differences in respect of the dimples. The inner covers vary according to the location of the dynamo housing hole and his was clearly different to mine and the difference seems to be about the amount by which mine



won't fit. You can see in the lower of the two pictures that the dynamo hole is further from the edge than my present cover (top picture). As further evidence the cover being offered was formerly on a Viper and removed because it did not fit. Worth a try and it's now in the post. With

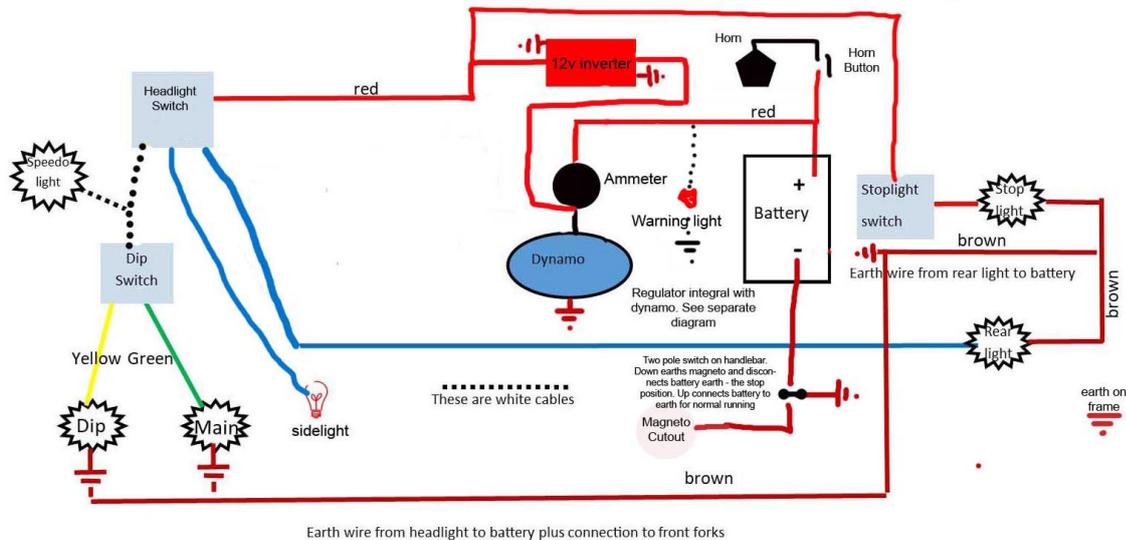
luck that is all I will need as my outer cover should still fit. Today I had an email offering an engine plate – the only contact on this subject so far. I have accepted his offer and we just need to sort out payment.

Saturday 6th January 2018

I finally figured out how to install the dual kill switch and did the necessary rewiring on Friday. I added an led warning light to remind me that the battery was still live. This wiring diagram is what I finished up with:

Wiring diagram for MOV Velocette EJG596

12v inverter for all lighting plus dual pole switch to isolate battery or earth ignition



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Friend Terry made a new bush for the gear change arm and this is now fitted. What a difference it makes to what was previously a very sloppy movement. Another friend, John Hill came up trumps with a set of dynamo covers which he sourced from a another friend in Exeter. He posted them on Friday and they arrived on Saturday morning. They were a bit battered but not difficult to repair. Unfortunately, when I offered them up they turned out to be too big. It seems likely that they are from the later Venom/Viper range. Still agonising what to do about this. Modifying them is a possibility but not easy to do well. Best option is probably to try and do a swap. Haven't had the heart to tell John yet – he will be gutted. Just to finish my day of on a low, when I kicked the engine over to test the ignition cutout, the clutch was slipping a tad. Probably the result of putting oil in the primary chaincase. So three steps forward and two backward. Never mind – just as well I have other projects on the go.

Wednesday 3rd January 2018

As the MOV project is a bit in limbo for the moment, I have moved the bike from the ramp to make way for something else (see the daily blogg). I also took the opportunity to sort out some of my cupboards and in the process found a Lucas magneto end-cap which incorporates a cutout. I have now fitted this in place of the original BTH cap. To do so I needed to make up an extended clamp. I am still trying to figure out a smart way to wire it in as I want to have a single switch which will kill the motor and isolate the battery earth connection at the same time. Another thing I had overlooked – or rather deferred until time allowed – was the gearchange bush which is very slack. I found a suitable piece of phosphor bronze and I will ask Terry D to machine it for me. I will ring him later to see if he is back from Kings Lynn.



Sunday 31st December 2017

Seems only fitting that I should finish of the year with an update. The gearbox has remained oil tight so far. The chaincase had leaked some oil when I checked it the next day. I tightened up all the cover screws and it looks as though that is also now oil tight, though doubtless it will leak copiously when being used in earnest. Putting oil in the engine at first seemed to throw up serious problems as I simply could not get it to pump through. All sorts of doom & gloom thoughts went through my head but because we had visitors I just had to leave the problem unresolved for a couple of days. Which turned out to be a good thing because last night I studied the spares book and the penny dropped. I had connected the oil pipes the wrong way round! This morning I reconnected them and within a short time we had oil circulating – what a relief. So I guess the project has ended the year on a high. Happy New year to all.

Thursday 28th December 2017

Christmas and some rather cold weather has limited the amount of garage time over the last week and in truth there is not a great deal more I can do to the MOV until the exhaust system is returned. One small job I had overlooked was the kickstart boss which I had powder coated. Currently the gearbox is fitted with a complete kick start assembly kindly donated by Brian Chidgey in Devon (thanks to John Hill). The boss on this is rather tatty so I have swapped them over. A job not to be taken lightly as it requires a tool to hold and tension the kick start spring; which is probably why I left it until now. In practise the switch over of parts was not that difficult. The tool was easily made and I have put it in the spares box in case of future need.

Of course I should have been wary as things were going too well. The assembly fitted back in the box and all seemed well until I noticed that the k/s was very stiff and would not return without some hand assistance. I also noticed that the back wheel had become stiffer to turn round. Eventually I found that if I slackened the 3 screws holding the k/s assembly things eased off. My immediate solution was to make a gasket for the joint and indeed this worked. However, when I checked the spares book to order a proper gasket, I found that none were specified! So I stripped the whole assembly down but could find nothing wrong and was about to give up and reinstate the original boss when inspiration struck. The assembly fits round the layshaft with a big phosphor bronze bush providing support. Behind the bush is a thrust washer and this had become misplaced. I put it back with some grease to hold its correct position and bingo everything worked as it should even with the fixing screws really tight.

Anyhow now the gearbox was fully assembled, I had no more excuses and it is now filled with oil for the first time in many a long day. I also put 100cc of oil in the primary chaincase. It had to be measured in as there is no level plug – nor drain plug for that matter. I used a flexible rod to dip the case and establish the internal oil level (20mm) so that I can check it from time to time. So that I can tell where any leaks originate, I used gear oil (which has a very distinctive sour smell) in the gearbox and red 2-stroke oil in the chaincase – mainly because of the colour and because chains like thin oil. If there are no serious leaks to be investigated, I will put oil in the engine for the first time.

Thursday 21st December 2017

Well it's the Equinox today so slowly but surely the daylight will be longer every day and before you know it Spring will be here. The two problems with the fitting of the regulator assembly have now seen solved. A couple of small plates as can be seen in the photo lifted the cover sufficiently to clear the top of the regulator and allowed for a piece of insulation underneath as well. The stripped thread also turned out to be relatively easy though not a solution for the purist. It turns out that 5mm is slightly larger than 2BA so I was able to re-tap the hole. To avoid putting too much stress on what is a very thin piece of metal, I used a piece of threaded bar with a nut rather than a bolt.

After writing Sunday's update I got to thinking about the dynamo drive bits I am missing and decided to take up an offer to buy a complete set of V belt pulleys and new belt. Rather more money than I wanted to spend but there is no way of telling when or even if the flat belt bits would emerge from David's hoard. The new parts arrived today and fitted straight out of the box - first time for everything. The second picture shows it in position. The bike is now pretty much completed apart from the bits I am either waiting to be delivered (tank and modified exhaust system) and the parts I am still hunting for, mainly the dynamo covers, sprocket cover. Once I get to the running stage no doubt a whole raft of new issues will arise.



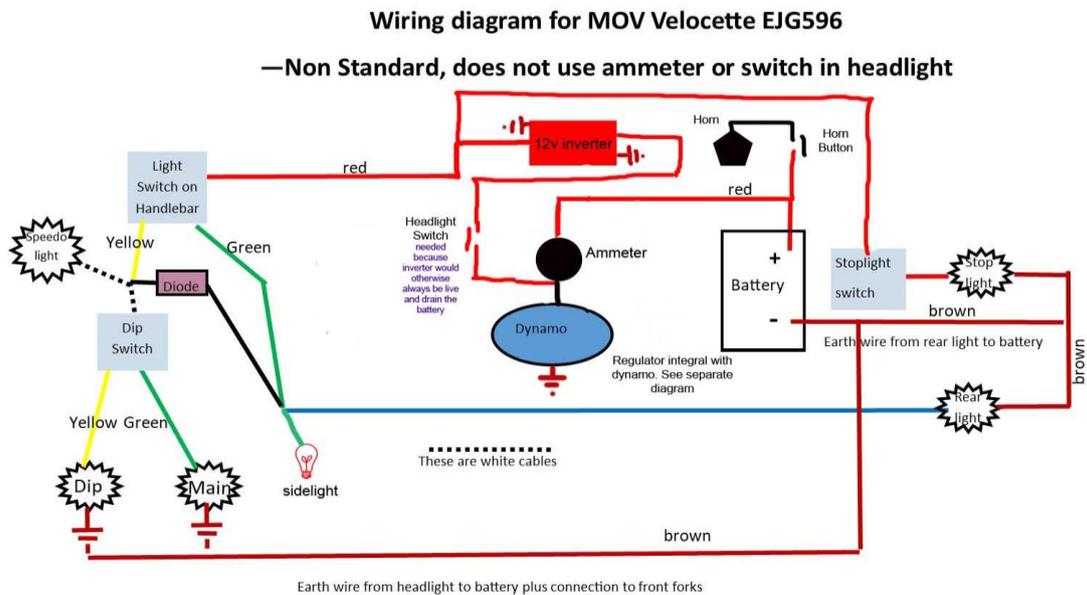
One

strange not to say disturbing thing happened when I was showing off the hybrid 6v/12v electrics to a friend yesterday. When I switched on the lights nothing worked. When I checked the fuse I found it very hot suggesting a dead short. I hastily disconnected it and only got round to investigating the problem today. I suspected there must be a dead short somewhere but was unable to find it and everything now seems to be working correctly. As a precaution I have put in a lower rated fuse to make sure it blows before anything serious happens. I did try a 2.5 amp fuse but that was just too low and blew when I operated the horn. A 5 amp fuse seems to be ok. I may rejig the wiring from the battery to have two fuses, one at say 10-12 amps for the horn and a 5 amp fuse for the rest. Fortunately, the way I have done the wiring this would not be difficult to achieve.

Sunday 17th December 2017

The VReg2 came back on Friday with a clean bill of health. The exhaust system is on its way back to Armours to be modified. I very much doubt I will get it back until the New Year as they are closed for about 10 days over the Christmas period. A couple of LED headlight bulbs I ordered from China arrived on Friday as well. Sadly though they were advertised as being 6v they will only work at 12v or above. However, a cunning plan was hatched after I got over the disappointment. In my electronics box was an inverter which will convert a 6v input into a 12v output. It needed some head scratching to figure out but finally I came up with a wiring scheme that seemed promising.

Indeed today I tried it out and it worked but it did throw up two minor issues. The first was that the inverter uses power even when not being used. There may be a way of achieving this automatically with a relay or suchlike but for now I have made use of the original headlight switch to isolate the battery. I daresay I will forget at times and finish up with a flat battery but hey ho. The other issue was that the stoplight was still 6v and was invisible against the now very bright rear light. I ran a new feed wire from the inverter to the stop light and this now works well. Pity I did not do this modification before the loom was wrapped but it is the only visible additional wire. All the rest including the inverter are in the headlight. – just as well it’s an 8” model. Anyway the resultant wiring diagram looks like this:



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I also made a start on wiring the regulator as well. First job was to strip out all of the old regulator bits from its mounting frame - easy enough. Next job was to figure out a way to fix the new electronic regulator onto the frame, also fairly straightforward. Of course it was too easy because though my initial checks had suggested it would all fit inside the cover, this proved incorrect, its about 1/8” too tall. I managed to get one screw to fit but of course the cover is lopsided. Sitting here typing this the answer is obvious, make up a couple of small plates to bridge the gap – a job for another day. The other problem was a stripped thread on the dynamo clamp to which the regulator box is fixed. This is much trickier and no sensible solution has come to mind yet. A repair is complicated by the fact that the dynamo clamp can only be removed when the engine is out of the frame. All these delays meant that I ran out of time so the connections from regulator to dynamo are also a job for another day.

Tuesday 12th December 2017

Mrs F came up trumps and helped me put some blocks under the bike so that it can now safely be raised on the bike lift. With the wheel out I was able to sort a couple of long outstanding little jobs. The first was to bolt on the bottom of the number plate – the mudguard curvature meant it was impossible to do this with the wheel in place. The second job was to drill a hole through the mudguard valence to secure the rear chainguard. The chainguard is supposed to have a flap for this job but it has clearly broken off on mine. Anyway it is now secure. Not strictly necessary to have the wheel out for the next job but having chest level access made fitting the new stoplight switch which arrived today a doddle. That finishes the wiring.

Then onto the job I had been dreading, removing the tyre and investigating why it won't stay inflated. Though the Avon SM tyre is new in the sense that it has done very little mileage, it is probably quite old and was very stiff to fit previously. It was not quite so difficult this time and the tube showed two pinch punctures caused by the tyre levers. Part of the problem was that I tried very hard to protect the painted rim by using protective pieces of plastic (saw the idea on the internet). In practise they kept slipping out and were more hindrance than help so I probably got a bit aggressive over the job. This time I just used plenty of tyre soap and the levers in the usual way and was ultra careful. Tyre has remained inflated all afternoon so I think it's ok now. Phew!

I had an email from Armours to say their technical guy was not in until Tuesday (which is today) but I have heard nothing from him. Still also waiting for a response from AO services about the regulator. The bigger issue however is finding a pulley for the dynamo and the covers – until I have sourced all 3 of these the dynamo cannot be fitted.

Saturday 9th December 2017

Having got over my initial sulk about the fit of the new exhaust system, I had another go today and have managed to sort some of the issues. Using a spacer behind the pipe fixing bracket allowed some movement at the back end of the pipe so I think it will clear the kickstarter. I have not yet filed the fixing hole as I am rather hoping that Armours will have a solution to that problem. I was unable to persuade the silencer to slide further up the exhaust pipe, that needs tools or skills I don't possess. The only way I could do it would be to cut off the last 2" of the pipe but I am loathe to do that (yet anyway). However, I have made up a bracket which connects the silencer to its correct fixing bolt so the whole exhaust system is sort of fitted. However, I don't really think I should have to resort to work of this nature on a system that cost over £250.

On a more positive note, I have fitted the newly arrived s/s cheesehead bolts to the primary chaincase which smartens it up no end. While I was working in that area I had another go at fitting the brake pedal and I have finally found a combination of angle for the pivot bracket and spacers that seems to work. Only a road-test will confirm if this is correct but I am hopeful.

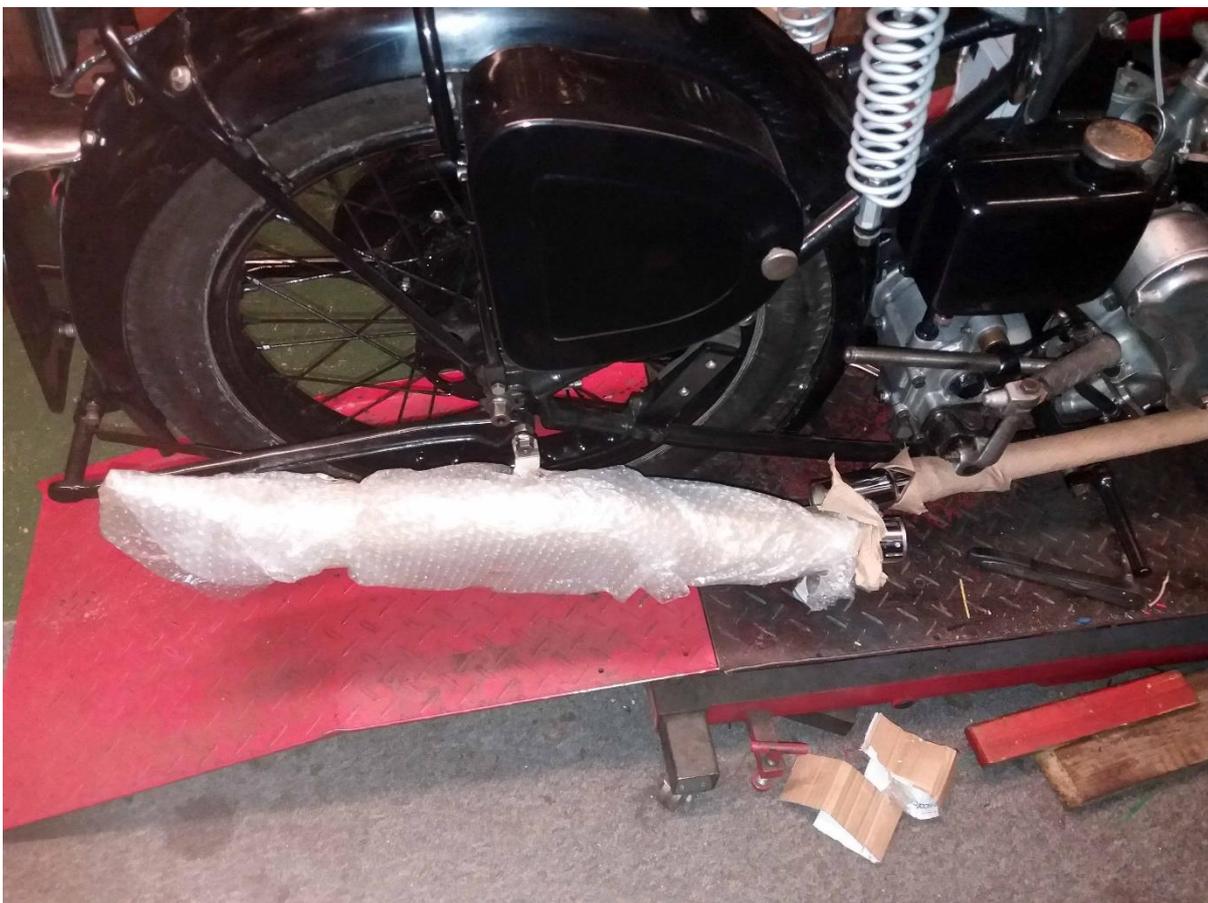
Last job of the day was to strip down the dynamo, partly to check its internal condition and partly to see how easy or otherwise it is to convert it to an electronic regulator. In fact, all the internal bits look to be in excellent condition so all I needed to do was clean the commutator with some methylated spirit. The bearings seem ok but I will probably replace them as a matter of course later. The drive end one needs a special tool to remove the lock nut so I may have to visit Ray Carter for assistance. Rewiring the dynamo was pretty straight forward once I had identified the correct pair of field coil leads. Millers have 4 leads, one pair is connected to a resistance coil which is not

needed with an electronic regulator. Some books say they can be cut off but I have left mine but insulated in a choc block. The built-in cutout has to be removed which greatly simplifies the end cap. Once back together I did a quick test and it ran as an electric motor so things seem hopeful.

The only downside today is that my cunning plan to get access to remove the rear wheel did not work out. I still cannot raise the bike on the lift which means I had to crawl around the floor to do some of today's jobs. I have another solution but I need a second pair of hands to help get the wedges in place. I may gird my loins and ask Mrs F to help if no one comes to visit in the interim.

Thursday 7th December 2017

The exhaust system arrived late Wednesday afternoon and I made an attempt to fit it on Thursday afternoon after John Hill had left. Not totally successful sadly with a series of relatively minor issues. The fixing bracket connecting the pipe to the engine bolt has a 5/16" slot whereas the engine bolt is 3/8". Could be fixed by filing out the slot but would leave a raw edge prone to early onset rusting. Also the pipe fouls the kickstarter and would need a ding adjacent to the oil pump housing to move it over. If these had been the only problems, I might just have done the 'adjustments'. However, more serious is the fact that the silencer will only go about 1.5" into the pipe before jamming and to get it to line up with the mounting bolt it needs to go another 2.5" or so. I don't know if this is because the silencer bracket is in the wrong place, or the pipe is too long or the internal baffle of the silencer needs relieving. I have documented the problems and emailed Armours for their comment. See the picture below.



As you may notice the MOV is now on the bike lift the normal way round thanks to a bit of help John and Simon and I was able to take the picture below during this manoeuvre. Overall it was not a very encouraging day as testing the front brake indicated that the front fork spring is probably too weak and my attempts to adjust the position of the rear brake lever to prevent the rod binding on the frame were inconclusive. I decided it was best to walk away and try again another day before I did something silly.



Tuesday 5th December 2017

The ammeter and the headlight switch are now both fitted to the bike. I have adjusted the wiring to anticipate the fitting of the Miller dynamo and wired in the ammeter – which works! The headlight switch fits and fills the hole nice nicely but does not seem to be positively located so that sometimes the whole assembly turns in the housing. Not sure why but have not bothered to investigate further for now as intend to retain my own handlebar mounted light switch arrangement. The drawback to the Velo switch is its location. It is immediately below the speedo and very difficult to operate when riding the bike; the post war spring frame MAC was the same. The venom has a top shroud with the speedo inset so does not suffer the same problem.

With the headlamp holes filled and the dynamo wiring known, I finalised the layout of the loom and have now wrapped it with special tape. All except the wires to the stoplight switch that is; a new one is on order. I also found a BA15D led headlight bulb which I have ordered from China. It was advertised on German eBay as being suitable for a Simson model but should do the job it was only £2.20 so no big deal if it does not do the business. Someone on the Velo forum pointed me to another website which does sell what looks like a serious BA15D headlight bulb but at £28 +VAT and postage I decided that could wait until the bike was actually on the road and lonely then if it

was likely to be used seriously at night. Armour's processed my credit card payment for the exhaust system last Friday so I am hoping it will arrive very soon though they have not actually confirmed a delivery date. No news on the tank as yet but it's not urgent.

I took a few more bits to TPCS for powder coating today, the regulator and dynamo end covers and the rear battery strap. I bought a s/s front strap as they do look much better than a painted one. I was tempted to say to Steve that this was the last tranche for this MOV project but decided not to tempt providence when I remembered that I have yet to find the dynamo front and rear covers and the sprocket door. The outer body of the dynamo itself has been rubbed down and painted. I am leaving it for a while to harden off properly before doing any further work on it. I tried a quick test to see if it would run as an electric motor with no joy so a complete strip down is called for. In the interim, I have been researching how to convert the Miller DVR to electronic regulation. This seems a bit daunting on first sight but I do have a V-Reg2 regulator left over from the BMW R26 project which seems to be suitable and is small enough to fit under the original Miller regulator cover. It would be satisfying if I can get the dynamo to work and convert it myself not to mention the cost saving.

Sunday 3rd December 2017

Not a lot of time spent on the MOV project today as I needed to give priority to some of my other bikes – see the Daily Blog. I have rubbed down the main body of the dynamo and during the course of the day it has received 4 coats of primer and two of black smoothrite. I will give it another couple of coats of smoothrite tomorrow then leave it to harden off. One thing I realised today was that I don't have the pulley for the dynamo end of the belt drive. I will have to add this to the list of outstanding items I am due to send to David.

The ammeter did not have its fixing clamp but I have now made one. It seems to be in excellent condition and I am tempted to try wiring it in to see if it works. I was able to make up one good headlamp switch from the parts supplied by David and I am also tempted to try wiring this in properly as I can see no reason why it would not work.

I now have three things needing powder coating, the battery clamp, the regulator cover and the dynamo end cover. Will do another review tomorrow to see if anything else is lurking in the boxes and then make a trip to TPCS. Would have been nice if I had finally sourced an engine plate. Perhaps I will have to give in and make one out of steel.

Saturday 2nd December 2017

My visit to Yeovil on Friday was quite rewarding. I came back not only with the dynamo and regulator, but an ammeter, a couple of headlamp switches, the correct steering damper and a spare clutch. The latter was in response to my tale of woe concerning getting the clutch working correctly.

Today I stripped out the old clutch and compared it with the 'new' one. The difference in width between the friction plates was very obvious and when measured, mine was 12mm and the other was 9mm yet still had plenty of meat; indeed it had come from a working bike. I reassembled it with a new distance ring, the complete new thrust bearing assembly and the correct short MOV pins. It went together far more easily and I was able to adjust it without difficulty. At last I have a

functioning clutch. Flushed with enthusiasm, I have now fitted the outer primary chaincase without any obvious issues other than the fact that I cannot get at some of the lower fixing holes due to the way the bike is supported. We are getting close to the point where the bike has to be moved from the bike lift and put back the other way round. This will need a helper so will have to wait until possibly Thursday when John Hill comes to visit.

The steering damper was fitted in minutes and looks great. The ammeter looks very presentable but I will have to make up a fixing bracket. No idea if it works but I don't plan to wire it in anyway. The bag of switches was likewise promising and a cursory check suggested that I can make one that works which is a bonus. All I was expecting was something to fill the holes in headlight.

The dynamo is quite rusty externally but looks fine inside. No idea yet if it works but again that is not essential as I am happy (well resigned) to running the electrics on a total loss basis initially. For the moment I will concentrate on making it look pretty. I did find a 6v electronic regulator from a previous project in my spares box so I plan to fit this in due course. However, the Miller dynamo is wired differently to a Lucas and I have sought help from the Velo forum on doing the conversion.

Monday 27th November 2017

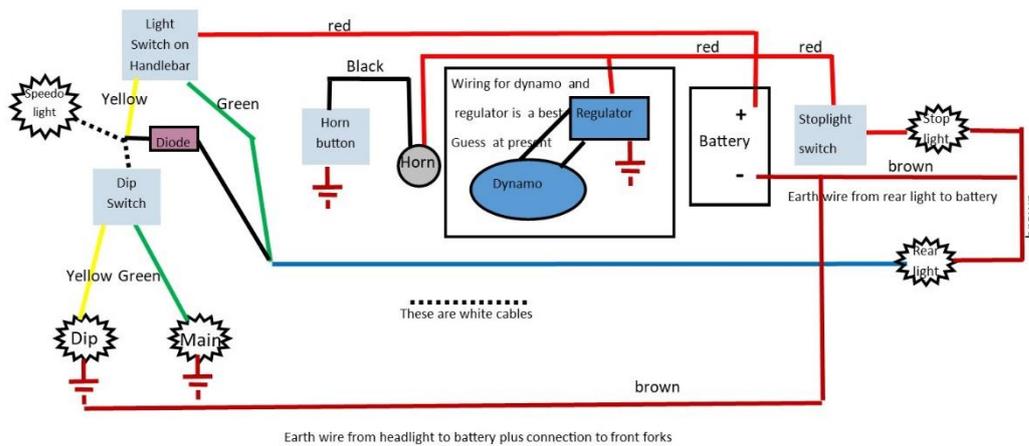
Well Terry's workshop tools worked a treat and certainly make assembling and dismantling the Velo clutch easier. My first assembly using all the new and correct components was not very successful. I could not adjust it properly and it would not free properly. With all 16 springs in place it also felt very heavy – Velo clutches are normally very light. In the end I had to use the new parts but with the modified (i.e. slimmed down) distance piece and to make life easier whilst playing I only used 8 springs. That combination gave me a clutch which is reasonably light and does free. I cannot detect any slippage when kickstarting so it may be that for now at least I can get away with a smaller number of springs. I recall that when Oliver visited last week, he told me that he only uses 12 out of the 20 springs for his Velo racer without any issues and had been given this advice by a Velo expert.

Anyway, I have decided to leave it as is and get on with other tasks. First of which was to fit the new gearbox sprocket and rear chain. Carrying on with the wiring was the next job and this is pretty much finished now though I still have to wrap the harness. I won't do this until I am sure I have got everything in the right place. At the moment I don't have the dynamo and it is unclear what type and where the regulator will be placed. Miller's had the cutout inside the main dynamo and the regulator bobbin mounted on top so only a single wire is needed to connect to the battery. Lucas dynamos used a remote regulator under the seat. I will have a better idea on Friday as I am hoping to collect a dynamo from David. In any event it is unlikely to work until it's had expert attention and most likely I will go for an electronic regulator.

As I don't have the correct switch or an ammeter, I have come up with my own wiring system which uses a handlebar mounted lighting switch (actually an indicator switch I removed from the BMW R26 ages ago. I am rather pleased with the way this has turned out. Getting a rear light to work on both parking and headlight settings was tricky but I raided the electronics box and wired in a diode which has done the trick. The bulbs are all 12v LEDs which work under 6v as well though obviously not so bright. I have taken the LED route to maximise battery life if I have to run a total loss system. Finding a BA15D bayonet fitting headlight bulb has proved impossible so far. For now I have

modified a stop/tail LED I already had in stock by filing off the offset pin. Its only about 21w equivalent in stop mode and a bit less in tail light mode and I doubt it will be much use for night time riding. However, combined with the 8" reflector it's a pretty impressive daytime riding light. I am continuing my search on ebay to find something better. Overall I am pretty happy with the result. Wiring diagram is below:

Wiring diagram for MOV Velocette EJG596
—Non Standard, does not use ammeter or switch in headlight



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Saturday 25th November 2017

Work on the MOV has been on hold for a couple of days while I attended to domestic chores and partly because I was waiting for some spares from VSL. These arrived on Friday and included a rear lamp and a dipswitch which inspired me to make a start on the wiring. I always make my own looms and it always takes a long time. The workshop always looks a real mess after a wiring session far worse than normal spannering. Things are progressing well and I have a cunning plan which enables me to do without the ammeter and Miller lighting switch – neither of which I have a present. Both items are ridiculously expensive to buy new and I am hanging on hoping that David C will find some usable ones. He did ring on Friday but he has been poorly so not done much if any searching for my missing bits. Provisionally I have arranged to go down to Yeovil next Friday to pick up the dynamo and anything else he has managed to find though I am not expecting much.

Tomorrow I will put the wiring on hold and attempt a rebuild of the clutch using the newly arrived parts. Terry D has made a and loaned me set of the workshop tools for assembling a Velo clutch so I will be giving these a test drive tomorrow.

Wednesday 22nd November 2017

The parts from Grove arrived on Tuesday including the new valve collets and the circlips for



the



gudgeon pin. Today I had a very productive day in the workshop as the pictures show. The top end of the engine is now assembled and even the carb has been fitted. I have made up a temporary engine steady, mainly so that I can take it down to David Child to see if the one he found is in fact the correct type for an MOV.

I phoned Armours and confirmed an order for a complete exhaust system which should be here by the end of next week. Had an email from VSL to say they would be processing my order tomorrow so hopefully the other clutch bits will be here by the weekend. Some small tidying up jobs to do but it looks like the wiring will be the next major phase.

Sunday 19th November 2017

A day of good and bad moments. I started the rebuild of the cylinder head today. Initially all went well and the inlet valve assembly went well. The exhaust valve was going equally well until the spring compressor slipped and bits exploded all over the garage. I spent an hour searching and managed to find everything except one of the split collets. I have ordered some new ones and am just hoping that Grove will be able to include them with the other parts they are due to ship on Monday. I also made up an exhaust lifter cable so that is one more item of the list. Only other cable I will need is for the throttle and I may have one of those in the Venom top box.

This afternoon Oliver Presswood from Bathford came to visit having read about my clutch problems on the Velo forum. We stripped the clutch and measured up a few things and tried swapping some of my parts with parts he kindly brought with him. We did get some improvement using a new cone shaped thrust bearing (mine was badly indented) but not enough to completely solve the problem. He also confirmed my feeling that the sprockets were not in line indicating that the backplate was



standing out too far from the gearbox. This was a contributory factor to the need for longer pins. We confirmed that there was 3-4mm clearance behind the clutch so I machined about 1mm from the sleeve gear spacer (even though it was ostensibly the correct length of 5/8"). With this mod and using Oliver's thrust bearing and my shorter pins the clutch operated correctly and the sprockets were virtually in line. Indeed, when the new friction plate has bedded in the chain line will be spot on. So not quite to book, but it looks as though I will now have a satisfactory clutch once

the new bits I have on order arrive. For the record, I took the some pictures of the clutch components.

While the chaincase outer cover was off, I glued on the cork gasket and left it to set overnight. The other side will be greased so that removal is possible without damaging an expensive gasket.

Saturday 18th November 2017

One step forward, one step backwards well maybe half a step. Gudgeon pin arrived and is in excellent condition and fits the piston perfectly. What it did identify though was a badly worn small end bush. This is now on order from Grove along with some clutch parts and a gearbox sprocket. They are due on Tuesday so I was a tad optimistic about being to finish the engine. However, it has given me time to clean up the cylinder head and the barrel (which was very good anyway). Both are now sprayed with satin black high temperature paint and put to one side to harden off. Tomorrow I will attempt to rebuild the head and rocker gear. I don't expect any particular problems but I am nervous these days about tacking anything on this bike for the first time.

One breakthrough has been the headlight assembly. The rim cleaned up quite nicely but the reflector would not polish up however hard I tried and would likely tarnish again quickly anyway. I



resorted to lining the inside with some self-adhesive aluminium tape. It does not bear close scrutiny but looks ok from a couple of feet away and certainly looks better than the tarnished silvering. I found a glazier locally who was able to cut an 8" circle of lightly frosted glass. This has been bonded into the reflector with clear silicon to give it some protection from vibration. You can see the result alongside. No idea yet if the bulbs or holder work – electrics are a long way down the list of things to do.

Thursday 16th November 2016

Well I was right about the clutch being problem. Though I seem to have a correct selection of parts and all but one is within specification, I could not get the darn thing to work. Basically, the thrust pins are simply not long enough to reach the spring holder and release the pressure. The spring holder is threaded into the front plate and I have screwed it all the way in. The pins themselves are actually from another Velo model and slightly longer than the correct pins yet they are still too short. The clutch only lifts a tad before the thrust bearing hits the backplate. As a temporary solution I have made some longer thrust pins by grinding down some big end rollers and it seems to work. I have posted a query on the Velo forum to see if anyone can advise. Standard pins are 0.391" mine are 0.502".

With a clutch temporarily installed, I was able to fit the new primary chain and check out the kickstarter mechanism. That part all seems to work ok. I have also offered up the outer primary chaincase which also seems to fit ok. With the latter in place I was able to fit the front drive chain cover and line it up with the rear chainguard. This is missing its fixing bracket, something I did not notice until after it was powder coated. However, now it's position is clear, I was able to make up a support bracket which will do for now. Just drilling a hole in the chainguard and bolting it in position does not seem feasible as the bolt head would foul the rear chain.

One piece of good news, someone on the Velo forum is sending me a gudgeon pin for a reasonable price. When it arrives I should be able to complete the engine.

Wednesday 15th November 2017



Not a very good picture but sufficient to show roughly how far along I am with the rebuild. Decided not to try and remove it from the bike lift just yet as its ideally set up at present and I doubt I can get it back into this position once moved. I believe I have sorted the valve timing by using a degree disk mounted on the crankshaft and checking out all of the potential timing marks on the cam pinion until I got something as close as possible to the figures in the red book. I have now fitted and timed the magneto. Next step is to have my first attempt at building the clutch. I imagine this will turn into a saga as well – all good fun.

Monday 13th November 2017

Bottom end of crankcases now built and in the frame. I decided it was better to do this before adding any of the timing gear and other parts as it was lighter to handle. Took a little while to get the engine plates lined up but in the end everything fitted ok. I have made a start adding various bits to the crankcases, the big job will be to time the camshaft – in theory it is easy as the pinions are supposed to have markings to line everything up. However, when I looked at the camshaft earlier in the project it seemed to have a number of marks and it was not immediately obvious which was the correct one. I also need to mount the magneto which reminds me that this normally requires narrow nuts. Not sure if I still have an of these. I am away all day Tuesday so it will be Wednesday before I can get back to the MOV project. I am hoping the weather will be dry enough to allow me to take some pictures outside. The ones I have taken in the garage are dire.

Saturday 11th November 2017

The parcel from VSL arrived on Friday morning – excellent turnaround as I only placed the order on Thursday, Unfortunately the crankpin was not included, seems they have run out and are not planning to restock anytime soon. A disappointment but not a major blow as I do have a usable crankpin and at least they did include the rollers. In Saturday's post was the V5C (log book) for the MOV so I tried to either tax or SORN it before I got fined by DVLA, What a palava; the on-line system refused to let me do either so I tried phoning and got the same result. In the end I rode over to Holt as their post office does handle vehicle tax unlike the PO in our village. Felt sorry for the young lad who was manning the counter as he had never done one of these types of taxation before. However, we got through the process in the end and it is now taxed and the V5C is off to Swansea to be re-issued as an Historic Vehicle.

This afternoon I built up the crankshaft and tried it up in the lathe using a dial gauge to measure the runout. Took me a while to get the hang of it but finally I got it done. Put it in the crankcases and it span freely with no trace of wobble. Things were obviously going too well because when I tried to measure the end float to work out the shims required I found the cases would not actually meet! I checked that the bearings and the outer races were properly seated, I measured them to see if one was bigger than the other and I even swapped them round without any improvement. In the end I replaced the timing side roller bearing with a ball bearing (which was standard on this era of MOV anyway) and bingo I had some end float on the crank. As luck would have it this measured at just over 30thou and I had ordered 2 x 10thou and 2 x 5thou shims. These have now been inserted and I have left the cases to cool overnight. I used my hot plate to heat the crankcases and this worked well for the bearings and shims, in hindsight perhaps I should have tried the oil pump while I was at it. Out tomorrow at the MZ section meeting but with luck I should be able to crack on with the bottom end rebuild on Monday.

Thursday 9th November 2017

A few cosmetic things done today. The oil tank is coming along nicely and should be ready to fit in a couple of days once the paint has hardened off. I made up a number plate; just printed and laminated but it looks quite smart. While I was working at that end of the bike I applied the Velocette transfer to the rear mudguard. I have also made start on painting the headlight brackets. These are a hotchpot of bits so certainly do not justify the expense of powder coating but they will do the job for now. I might just get lucky and find some correct brackets eventually. I am painting them one at a time so I can leave the headlight itself in place.

On the engineering front I made up my own front brake cable using adjusters salvaged from scrap cables grafted onto new MZ cables. Just hope my soldering is up to the job. Just to be on the safe side I made up two cables so I have a spare. I have also started the engine rebuild. The main bearing outers are now shrunk into the cases and I have replaced the camshaft spindle whilst the cases were hot. I chickened out of replacing the oil pump. I need to get the cases really hot for this job and the kitchen oven is the only place to do it now I have lost my garage oven. Mrs F is away next weekend so that will be an ideal opportunity to get the job done. One of the things that has been worrying me is the shimming of the camshaft to prevent chattering. The spares book does not mention shims and I got no response to my request for help on the Velo forum. However, inspiration struck when I replaced the spindle. I simply tapped it back onto the crankcase so that there was zero end float between the cam and the support plate. Not sure if this is the approved

way to do it but hopefully it will work. No other actual assembly attempted today, I just tried out various parts to make sure they would fit and to establish if anything significant was missing before attempting the bottom end rebuild.

Looking through the Velocette spares scheme parts I found they had new crankpins listed for the MOV so I have today ordered one along with a load of other bits. Until these arrive I cannot do much more with the engine. Building and truing the crankshaft is going to be challenging. I last did this on a Velo nearly 50 years ago without realising at the time what a tricky and specialist job it was. Still I got away with it as the engine ran perfectly afterwards; hopefully I will again this time. At least I now have the lathe and a dial gauge to help me.

One final step forward was getting in contact with Andy Rowett about the petrol tank. He now has it and will take it to the painter in Wells he entrusts with all his paintwork. That will be the single biggest cost of the restoration (circa £300) but a tank makes a bike so it has to be done. However, the cost of a full exhaust system at circa £250 is not much less but again it has to be done.

Tuesday 7th November 2017

The throttle I ordered from India arrived today. It's a clone of the Amal (Doherty) twistgrip used extensively on British bikes though I am not sure if it was as far back as the 1930's. No matter it looks well made and will do the job. It came with a rubber grip for the clutch side of the bars – both embossed with Royal Enfield so I have put them on with the name underneath.

Major achievement today was to connect up both brakes. I had all the pieces for the back brake; it was just a question of figuring out how the pedal fitted. This mounts on a bracket which fits onto the footrest bar. I made up a brake cable for the front end with correct size adjusters. Not wholly confident about my soldering skills but it seems ok for now. I will keep searching for a commercial cable of the right size – more likely I will have to get one specially made. The brake itself seems very good but only a road test will prove this.

One of the other missing items are the headlamp brackets. I have made up some temporary ones which work well but the metal is very corroded so they are not suitable for long term use. At least I have a pattern to work with.

Next major stage is to rebuild the engine. In theory I now have enough bits complete the bottom end – let's hope theory and practise are in agreement. Cosmetically only the oil and petrol tanks remain, other than a few odd brackets. As soon as we get a warm dry day I will have another go at the oil tank. The petrol tank will be done professionally; just a small matter of finding someone to do it and finding the money bearing in mind I still need an exhaust system. Still it is looking more and more like a real bike.

Monday 6th November

Parcels day today. The s/s front brake arm I ordered from eBay arrived and looks really good. It was a tight fit on the spindle initially so I eased it a tad with a fine file and it is now fine. The only disappointment was that the new brake cable which was amongst the goodies in the other parcel would not fit. The issue is the diameter of the adjuster which is 5/16" whereas the cable stop on the brake plate is only 1/4". I seem to have three options; drill and tap the brake plate stop to fit

the cable, find an alternate cable, more likely have one specially made or make my own cable. Jury is still out on which way to go.

The parcel also contained the new rear sprocket; this was fitted to the back wheel which was then put into the frame so now I have a rolling chassis should I need to move the bike. Next on the list was the gearbox as the parcel also contained a thrust washer which was the final bit needed to complete its assembly. Gearbox now complete and installed in the bike. Most of the other bits in the parcel are for the engine which I have yet to start building.

My other achievement today was to make a temporary steering damper rod and know so that the steering could be locked in position when required. Looks hideous but it works.

Saturday 4th November 2017

Quite an eventful week and I am not necessarily documenting things in the right order. Perhaps the most satisfying day was Thursday when I went down to Talaton for lunch with a group of friends and picked up some very useful bits for the Velow project. One of these was a surprise, John had borrowed an MOV gearbox from a friend in Exeter plus a complete k/s assembly. Taking the 'loan gearbox apart and comparing it with mine quickly established that the stiffness was caused by a tight bush on the upper first gear. After reamering it out lightly, the gearbox performed perfectly. I still need a couple of parts before I can finally assemble it and these were ordered from Grove Classics on Friday along with a number of other bits. Next treasure trove from John was a box of bearings which included what he thought were two new MAC/MOV mains. I have now been able to confirm that was the case so that is another major hurdle overcome.

I took with me to Talaton the conrod assembly and the camwheel with its spindle for a second opinion on whether they were usable. Both items were considered usable; the bigend will be assembled with new rollers, also ordered from Grove. It was noted that the camwheel spindle was only worn on one side – presumably what would have been the top when in the bike as this is the side which would get the pressure from the valve gear. When I rebuild the engine I will put the worn section facing downwards. Altogether a pleasant and rewarding day as another friend Andrew from the MZ world and a neighbour of Johns also turned up for lunch. I drove and gave a lift to Simon which made the journey very pleasant. He has suggested that we have a rideout sometime soon and he will show me some of the interesting industrial architecture around our neighbourhood, particularly some of the now disused railway lines. Looking forward to that.

Also on Friday I collected the latest batch of powder coating from TPCS. This enabled me to finally assemble the girder forks, front mudguard and put in the front wheel. I found the bottom bushes were slacker than I was expecting and my attempts to shim them were not successful. I decided in the end to leave everything as is for now. If it proves noticeable when riding the bike then I will strip the forks and have the bottom bushes replaced and new spindles but with luck it will be ok. The heap is now beginning to look like a bike. One of the other things ordered from Grove was a rear sprocket. This is the final part needed for the rear wheel so perhaps on Monday I will have a rolling chassis complete with a working gearbox. This should enable me to tidy things up a bit and make a start on the engine.

Almost forgot that I also made a start on painting the oil tank. Not too happy with my efforts but I have put on a fair amount of paint and left it to harden for a few days. I will rub it down and apply a few more coats but I need some warmer weather so I can do the job outdoors. The light indoors is never good enough for spraying things properly. I have decided I will have the tank painted properly, seems like Andy Rowett a local bike engineer has a contact who does a good job.

Tomorrow we are having a run to the Forest of Dean so no more workshop time till Monday at least.

Monday 30th October 2017

Picked up the powder coating from TPCS last Tuesday. The only bits in this batch used so far are the pillion footrests. I had to make up some fixings for the rubber footrests on one side but the other was ok. On Thursday I went down to Yeovil and came back with a box of really useful stuff including a speedo with correct cable, mounting bracket and the gearbox driven on the front wheel. The latter is now fitted to the brake plate and works well. The speedo is reputed to work but is currently partly stripped to paint the body. The trip mechanism does not work so I guess it will need to be serviced properly. I also have 3 out of the 4 engine plates, the original carb a rocker box (needing some work) and load of smaller bits the most important of which was the top & bottom steering head cones. This means that I could now properly assemble the forks but I was not happy with the paint job I did on the top yoke so it and a few other bits and pieces were taken to TPCS today for powder coating.

On Sunday I went to Dursley and collected the magneto and also bought an MOV barrel and matching +40 piston – both in good condition. The rocker box I collected on Thursday had a couple of stripped threads which are now repaired. I now also have the original conrod/bigend assembly. The track on the pin and the outer race look ok to me but I am going to get a second opinion on Thursday. I think this will be usable provided I can get some new rollers as the originals look a bit past their best.

Today I had a go at building the gearbox. Several false starts but eventually I got it all together and sort of working. Though the gears all select and work everything seems a bit stiff. I have posted a query on the yahoo Velo forum seeking advice. I am also missing a couple of bits which are now on my wish list.

Thursday 19th October 2017

Just got back from Spain riding the Venom in the Colombres Rally so no MOV project activity until today. The bits I ordered from VSL and the tank sealer both arrived while I was away. Most of the VSL bits were associated with the girder forks – spindles and s/s nuts. The rest were transfers which have been put aside for now – it will be a while before they are needed. I cannot assemble the forks until I get the links back from powder coating. Sent TPCS an email today asking when they would be ready – hopefully soon.

The weather was wet but warm so I decided it would be ok to line the petrol tank with POR15. Its only a small tin, about ¼ lt and it looks just like hammerite silver paint. Anyway I poured it in and swished it around for ½ hour then drained out the surplus which amounted to about 1/3 of the tin.

The tank itself is now in the greenhouse as it takes 96hrs to harden enough to put petrol in the tank. I am debating whether to line the oil tank with the surplus.

I have also had two pieces of good news. Firstly a call from Ray Carter to say that the magneto was ready and that he had found some MOV Velocette parts. I plan to have a look at these when I collect the mag, amongst the parts are a barrel and piston. The second pleasant surprise was a letter from John Hill who has found a set of new original main bearings for the MOV. I am having lunch with him and some other friends next week and will collect the bearings at the same time. I have just spoken to David Child and arranged to visit him next week to collect the additional parts he has found. This will enable me to compile a new list of outstanding parts needed to complete the bike and to start advertising for them. So far the MOV project is progressing nicely.

Sunday 1st October 2017

The repair to the tank support studs using JB Weld seems to be very successful, I tried hard to shift them and they remained firm so I patched up the pin holes and some corroded areas as well. Looking in the tank some while later I realised that it contained quite a lot of the soda powder from the blasting so I have washed it out firstly with a caustic soda solution and a couple of handfuls of gravel to help shift any petrol residues still in the tank, then with fresh water. I took particular note of my repairs and there was no sign of leakage. Not to say it would be petrol proof but once I have lined it with sealant it should be fine. After doing a bit of research, I opted for a product call POR15 which has a good write-up. The tank itself was dried using my hot air gun. I used a USB camera connected to my phone to have a look inside the tank and it looks clean, dry and ready for the sealant.

I decided it would be a good idea to mount the tank on the bike just to avoid any surprises later when it has been painted. In fact it fitted fine and the forks were well clear on both locks. However, the oil tank would not fit snugly against the side of the petrol tank (they share the same fixing bolt at the rear) so I had to file a small recess in the mounting bracket. Thank goodness it's also still in primer.

This may be the last blog update for a while. There is little I can do now until the second pile of powder coating is ready and I get down to Yeovil to visit David and bring back whatever parts he has managed to find.

Saturday 30th September 2017

I have put together an order for VSL for spindles and nuts for the girder forks. These should arrive by the time I get back. I bought some s/s 10mm penny washers from Screwfix today and have modified them in the lathe to make them into knurled washers (I new tha knurling tool would come in useful one day) total cost was £1.99 compared to £20 for a set of 8 from VSL. With the latest batch of bits due back from TPCS on 18th, I should be able to complete the rebuild of the front forks and mount the mudguard and front wheel.

There is still an issue with the friction damper assembly but I had a thought about that today and think I will be able to repair the old one. The key to this unit is a long bolt threaded 7/16" cycle internally to fit the spindle and 5/8" cycle externally for the adjuster. I found a piece of 1" hex bar and I have made most of this bolt including the internal threading. My tap&die set only goes up to

½" cycle but I spoke to Terry D today and he is pretty sure he has a 5/8" tap and a die. I am going to take the bit I have made over to his house when I get back to see if we can finish the job. As well as the special bolt I will need the friction adjuster. I have two potential candidates ready for the trip to Terry's. The first is the from an earlier version of the Webb girder fork, and is basically a metal strip with a large hole pressed in the centre and threaded ¾" cycle (way too large). The threads are stripped anyway so I have made a top hat bush to sleeve this down to just under 5/8". The correct type of adjuster is shaped like wheel and mine had been welded to the spindle I assume because the threads were stripped. I have now bored this out to just under 5/8" and removed all the unwanted bits. Hopefully we will be able to tap one or other adjuster to the correct size. Quite satisfying if all this lot works.

Friday 29th September 2017

Well I was right about the speed with which Terry fixed the girder fork links. I picked them up on Thursday evening on my way over to the VMCC meeting. A very neat job, far better than I managed with the to links. This was optimal timing as I was able to add the links to the box of parts I took over to TPCS this morning. After some pondering, I decided to get the front mudguard done now as well. That should just leave just a few odds& end still to be done, mainly parts I don't yet have like the front mudguard stay and the headlamp brackets.

All happening today because I got a message from RJH to say that the petrol and oil tanks were ready so I collected them on the way home as it was close to my route anyway. He has made an excellent job and even sprayed them with primer to stop them going rusty. The oil tank has one small dent which I have now filled so it can be painted when the mood takes me or the budget allows for a professional job. The petrol tank has three small dings which I have also filled and a strange ripple which I am trying to disguise by using several coats of hi-build primer. Seems to be working but it's a slow job. Unfortunately, there are a couple of pinholes where the knee grip fitted as well as a degree of other corrosion. I am still considering the best way to make the repair and have been consulting knowledgeable friends. One thing missing from the tank were the bolts to which the cross-brace fits underneath. I have glued in replacements using JB Weld to see how effective it is. If it works well, I may use this to seal the tank and then use an ethanol proof sealant inside. A similar system worked on my ETZ250 tank using araldite and in theory JB Weld should be better.

I had an email from another guy on the Velocette forum advising me that he had some MOV spares. I have written to him listing what I need and he is going to search his spares pile. Hopefully he will be in contact by the time I get back from Spain.

Tuesday 26th September 2017

Bit the bullet and drilled out the rivets of the toolbox mudguard stay bracket. Reconnected the bracket to the stay and fitted the tool box and the rear section of the chain cover to get them lines up correctly. I was then able to drill new holes in the mudguard for the repositioned bracket and rivet it in place. The mudguard itself is beginning to look like a swiss cheese as there were already 8 other holes serving no obvious purpose. The good thing is that I had not yet got around to powder coating or painting it. However, I need to think carefully about how to fill them. Body filler is the obvious and easiest option but I doubt it will stand up to the blasting and heat of the PC process. I

need some JB weld or similar to fix the gearbox lug and I wonder if this would do the job. According to the advert it is good for 500 degrees and I believe the powder coating ovens usually work around 350-400 degrees so it may be possible.

I have decided to send a further batch of stuff for powder coating which includes both brake backplates, the seat base and various odd/ends. If I take this over by Friday, it should all be done when I get back from Spain. I'll have a chat with Steve at TPCS about the mudguard repair as well.

I put an enquiry on the Yahoo Velo group forum about sources for some of the items I know David will not be able to provide. As a result, I was put in contact with Nick Payton who is a Velo guru and very well respected. He specialises in Post War models but reckoned that he would be able to provide gearbox and clutch parts and possibly some engine parts. He does not have a web site or email so its going to be phone and snail mail communication. I will wait until I get back from Spain and have collected whatever parts David has found. I will then list the bits I still need and write to Nick to see if he can help.

I seem to remember that there is a Velo expert somewhere close to Trowbridge called Chris ??????. Will have to ask around and see if he is able to help.

Terry D popped round late this afternoon and I showed him the MOV and we talked about the girder fork links I have been thinking about repairing. He reckons he can fix them for me and has taken them away. Knowing Terry they will be repaired and back in no time.

Monday 25th September 2017

I collected the parts from the powder coater this morning. He has made a lovely job as always. Some of the bits fitted easily like the footrests and the side stand. Quite a lot of the parts will not be required for some time so they remain wrapped and have been put away for now. First major task was to dismantle the girder forks to fit the spring. Getting it to spiral onto the mounting of the bottom yoke was difficult and I had to resort to Stilsons to twist it into place. Despite wrapping the spring in a piece of inner tube I have ground some of the paint away but it's well hidden and can be touched up ok. Next task was to fit the battery platform (which doubles as a mudguard support and the rear mudguard stays. These went on fairly easily but I had to make up some correct size bolts as most actually fit into threaded holes in the frame. Thought I had cracked it until I came to fit the toolbox which fouled the frame at the bottom. Looking at pictures of other MOV's it is clear than the stay to which the toolbox attaches should be vertical, mine slopes forward to about the 1 o'clock position because that is where the fixing bracket is located. I guess I am going to have to drill out the rivets move the bracket backwards and re-drill the fixing holes. Though the mudguard looks to be the correct type for the bike it clearly is not. I decided to adjourn for a cuppa and think about this.

Later I rang David C to get a progress report on the search for bits. We have ticked off a number of things but many of the critical parts for the engine, gearbox and girder forks have yet to emerge. None of the stuff he does have is especially critical to me at this point so I decided not to go down to Yeovil this week. I have arranged to ring him after I get back from Spain. Oh yes, the seat cover for the saddle arrived in this morning's post. Looks as though it will fit ok.

Friday 22nd September 2017

Yesterday I ordered a saddle cover from the VMCC shop. They sell two sizes so I had to email them to get the sizes. Of course, my frame fits neatly between the two sizes so I have ordered the larger one and just hope I can adjust it to fit.

Friction services rang the morning to say the brake linings were done so I drove over after lunch and collected them. They have made a really good job and the fit is so snug they should bed in and be effect very quickly. The back wheel went straight back into the frame – best place for it otherwise I would be tripping over it all the time. The front wheel present more problems because it kept binding when I put it in the forks and it was much too close to the LH side such that the mudguard would rub. After a lot of trial and error I managed to get this sorted out but it was more complex than just placing washers on spindle because of the need to provide adjustment for the taper roller wheel bearing. Adding washers did move it over but the spindle was then too short on that side so I had to make up a special very narrow washer on the other side to move the spindle itself. Altogether it took a couple of hours to get it sorted, part of which was spent fixing the lathe which tried to partly dismantle itself in the middle of the task. Anyway I now have two usable wheels with the prospect of good brakes.

I was hoping that the items I took to Steve at TPCS would be back today as well as many of these can now be fitted directly to the frame. Ah well maybe tomorrow.

Wednesday 20th September 2017

On Tuesday I met up with John and Simon for one of our regular (Though infrequent) lunch time meetings at the Cross Keys near Frome. We had an interesting natter, partly about bikes and partly about railway and locomotive matters as they are both very capable engineers making their own model steam engines. John very kindly brought up several boxes of things he thought might be useful for the MOV project. A quick glance showed some carb bits including an almost complete Amal 274 – too small really but it does have the special Velo air adjuster and would probably work for testing purposes. There is a flange fitting magneto but of Lucas N1 type. Normally later Velos used Lucas k1f type but no obvious reason why the N1 would not work. Have yet to try it out and in any event my BTH mag is currently being restored by Ray Carter so I should not need the N1. There is also a big box of fuel taps and a box of girder fork parts though at first glance they don't look Velo. Lots of other odds/ends as well which I will sort through in due course.

On the way to the lunch venue I dropped off the petrol and oil tanks with Roger the soda blaster. I now await with bated breath his report on whether the blasting found any perforations especially around the LH knee grip.

Today I took both wheels to Friction Services in Keynsham to have the shoes relined. They like to have the wheels so they can make the linings to suit the actual size of the drum. They should be available by Friday but frankly there is no hurry. Prior to that I spent some time studying the manual (there's a first) to make sure I had all the right bits and understood how the front wheel spindle and bearings were assembled and adjusted. To get the wheel central I needed to fit a thick washer on the LH side to push the wheel over a tad. Solving that problem meant there was not enough thread to secure the wheel nut safely on that side. I then had to experiment with spacers on the other side to push the spindle to the left. It was trial and error but eventually I established

what size spacer was needed. For now I am using a selection of washers but when I get the wheel back I will turn up a proper spacer.

Having got the front mudguard sorted so far as fixing holes were concerned, I spent a mucky ½ hour cleaning of the heavy grease David had used as a preservative. This caused me to look carefully at the rear section where the lower stay (which doubles as a front stand) is fitted. This is only held by a single ¼" bolt and to my mind the mudguard would eventually split in that area so I have reinforced it from the inside. The bottom of the mud flap also had a welded joint at that point so I have fitted a reinforcing plate underneath as well. Possibly overkill but better to do it now before the guard is powder coated or painted – not sure which option to take yet.

Whilst looking for something else, I came across a big box of assorted springs and this got me thinking about the saddle. So I spent the remainder of the afternoon making up a set of 8 springs to replace the ones which were missing. They look a bit odd but once the felt pad and the cover are in place they will never be seen. Having sorted this problem, the seat frame can now be powder coated. Another step along the way.

Monday 18th September 2017

Things are moving on well. I have made temporary fittings for the front mudguard out of some bits from my scrap box. The good news is that the bottom stay which doubles up as a front stand is actually the correct one for the bike and not the longer KSS type we originally thought. Amazingly the mudguard lines up correctly; even centred on the tyre at the front without resorting to any heavy handed force. It all looks pretty scruffy at present as there was no point in painting any of these parts until the fitting and drilling had been done. The mudguard and bottom stay can go for powder coating, the home made bits I will paint myself and hope that the correct parts turn up in due course. The red rope and the tube are to keep the fork more or less in line as the spring is away for powder coating at present.



I have a couple of minor issues to sort out with the wheels and then we should have a rolling chassis.

I had a text from the guy who does the soda blasting tonight. As I suspected, he had been on holiday. I will drop the parts of with him tomorrow morning on my way to the model railway club. I am meeting up with John Hill for lunch tomorrow and he tells me he is bringing a box of bits which may be useful for the MOV project.

Sunday 17th September 2017

Nothing done on MOV yesterday as I was helping out at the model railway club open day but some giant steps forward today. I have put the tyres on the wheels and the back wheel and mudguard are now in the frame. It will have to come out again as the tube keeps going down but the tyre is so stiff it does not matter for now. I was able to assemble the steering head using the taper roller bearings I found in my stock. They will need a little more shimming to remove a very slight amount of play if I decided to retain them for road use. However hopefully the proper top and bottom cones will turn up in due course and for now they are perfectly satisfactory. I was then able to assemble the girder forks and they seem to be ok. Once I had pumped in the grease, I could detect only a little play and some of that was because of the inadequate shimming of the taper roller bearings. With new spindles and better links I think the fork will be fine, indeed it is probably ok even without.

Next job was to offer up the front mudguard which would not fit initially, rather to be expected with a pattern part. The issue was the width of the section that fits between the fork legs. However,

after some gentle squeezing in the vice they eventually slid into place. It was clear from the abrasion marks on the inner fork legs that the original mudguard was a snug fit as well. I don't presently have any of the mudguard stays so it was just as well that the mudguard was a tight fit and it stayed more or less in place whilst I fitted the front wheel. I used some blocks of wood to centralise the mudguard against the tyre and have been able to mark the correct location for the centre fixing. I should be able to make one of these from some steel plate. A job for another day.

I have tackled a couple of other little jobs as well. Some new spacers for the footrest bar as the old ones were very rusty and had started to crumple. I have made the tow pivot bolts for the rear stand, one incorporates the mounting for the silencer. Quite pleased with that job. Various other nuts and bolts have been located and placed in their correct position on the frame ready for the parts they secure (e.g. tanks, engine plates and seat).

All in all quite a satisfactory day. I have spotted a couple of things I need to check up on but no show stoppers so far.

Friday 15th September 2017

Further progress, I have now painted the main section of the girder forks and the actual frame of the bike and given both wheels a finishing coat. Now I have to resist the temptation to meddle with any of these parts for at least 2-3 weeks to allow the paint to harden off. Normally I put them in the greenhouse as I have found that ultra violet light helps this process, though it may really be that they are out of sight and less temptation to work on the parts before they are safe to use.

Last night I raided Terry D's stock of BA bolts and now have enough to secure the primary chaincase, I have run a tap through the bolt holes and all the threads seem to be sound. I also searched my stock of bearings and found a pair of taper rollers which could be made to fit the steering head. They will need shimming but I also found some thin wall s/s tubing which should do the job. Even if they turn out not to be viable for road use, they will enable me to fit the forks in the frame so that I can tackle other jobs like the front mudguard. And fit the wheel.

The front tyre arrived from Openeo this morning and a search of my stock found a couple of 19" inner tubes. Once the paint on the wheels has hardened I will fit the tyres which will move the project forward quite a lot. I could even have a basic rolling chassis before the end of October.

Thursday 14th September 2017

Some progress to report. The Hammerite paint has arrived and I have given the wheels a first coat. With the back wheels it was mainly a question of freshening up the existing black paint on the rim and doing the hub and spokes. The front has a chrome rim though it's quite dull so as well as the hub I have now sprayed the rim black. Looks pretty good and both wheels now match. They will both need a second coat in due course but I will wait for a couple of weeks or so to let the first coat harden off.

Tomorrow hopefully I can start painting the girder fork. Speaking of which, yesterday I found a piece of 10mm rod from which I was able to make a second top spindle so now I have a full set and can reassemble the forks on a temporary, possibly medium term basis. It would be nice if I could avoid buying the full set of spindles for now at least as I took the magneto to Ray Carter in Cam

today. The news was not good; it needs a full overhaul with rewind armature and is likely to cost around £160 which was rather more than I had budgeted for. It was disappointing but not a surprise and probably best to get it done and out of the way.

Tuesday 12th September 2017

Back from Cornwall and getting on with the project. I am waiting for the soda blasting chap to contact me about the tanks, think he must be on holiday as all I can get is the answerphone and no response so far to a message via his website. I have also spoken to ray Carter in Dursley who will look at the magneto for me. I will take it up to him on Thursday.

In the workshop it has been a dirty day rubbing down the frame and the girder fork components. Both have come up very well. The paint has been ordered and ought to be here on Thursday so I should be able to get these parts painted quite soon. I have also stripped down the sprung saddle which will need to be sand blasted as well. Only 8 of the 14 springs are present so that's something to be added to the list of spares needed.

Last night I rang David Child's and we had a long chat about the missing parts. He has found some and is confident about a number of the other items as well – just has not found them yet but he is looking. Some parts he does not have (which I expected) and I am anxious to get a handle on the items as soon as possible so that I can start looking elsewhere. So far the parts in this category seem to be items I can and was intending to buy new anyway like an exhaust system. We agreed that I should ring in two weeks for a progress report. At his suggestion, I am sending a revised list which includes a few other things I have since discovered as missing and allocating a priority so that he can concentrate on the things which are critical in the short/medium term. I finished that this evening and will post it tomorrow. One other thing I have ordered is a new front tyre – I have a practically new Avon SM for the rear which I took off the Venom when I fitted the Roadriders last year.

Spoke to John Hill tonight to give him an update on the MOV and the Guzzi. He is searching through his spares boxes and seems to be finding things which may be of use – possibly including some girder fork parts. We are due to meet in a couple of weeks and he will bring with him what he has found so far – what a nice man.

Tuesday 29th August 2017

Every day a little more progress. The letter listing the missing parts was posted today 1st class so should be with David tomorrow. I don't expect an immediate response but hopefully when I get back from Cornwall there will be some good news and a trip to Yeovil. The tinware below is now with TPCS and I had a chat with Steve about the petrol and oil tanks. He has put me in contact with someone local who does soda blasting which is a bit less aggressive and more to the point the residue is water soluble so easier to remove afterwards. I have an acceptable quote for doing both tanks and priming them (essential as they would start to rust almost immediately). I decided it was best to have this job done professionally and sooner rather than later for a variety of reasons. It's too late to get it done this week but it will be soon after we get back on 11th Sept.

I gave the front wheel inner rim another coat of paint and have given the rear wheel a preliminary clean up. Basically, it's very sound and looks as though it has always been a painted rim rather than

overpainted chrome. The inner rim has been given a fresh coat of paint with a second coat tomorrow. The outsides I will paint when I have bought some more Smoothrite. I will order a couple of cans and a tin for brush painting as I have decided to paint rather than powder coat the frame. Having cleaned it today, I found the overall condition to be very good with no rust pitting or other nasties; some light rubbing down is all it should need and it will save me around £100 as against powder coating.



This is the petrol tank, sorry but sound, I took the pictures mainly as reference for the lining and transfer locations. The pitting looks worse in the picture than in reality (I hope) and as far as I can see there are no actual perforations. I imagine that water must have been trapped behind the knee grip. The other side is fine. Worst case is that I will need to line the tank; might do that anyway.

Monday 28th August 2017

Front wheel now cleaned up including de-rusting the inside of the rim which I have now painted with black Hammerite smooth. It won't last forever but long enough to get the bike mobile and by then who knows – maybe s/s spokes and a new rim. I still need to paint the hub and the spokes, I may leave the rim unpainted for now. The chrome is very dull but there are no ugly rust patches. I will need to add tyres to my list of parts needed.

I have now put up a box of parts shown below (16 in total) which I will take to Steve at TPCS tomorrow. Some were quite heavily coated with grease and dirt so I have cleaned the worst of this to save his degreaser bath somewhat. I have also given the oil and petrol tanks a preliminary clean pending a decision on whether Richard will paint them for me.



Sunday 27th August 2017

Today was mostly spent working on the girder forks. I have made new bottom spindles using old ones left over from the AJS 250 I had a while back. I have also made one new top spindle out of the piece of 3/8" steel rod which came with the forks. Still searching for some more 3/8" rod to make a second one. I have also refurbished the links. For the top ones and one of the bottom ones I welded up the holes then drilled and tapped to get them back to standard size. The other bottom link was repaired by welding 7/16" nuts on the sides to replace the worn threads. The bushes in the blade and steering head are a little worn but useable for the present; surprising given the acute wear in the links. This is not intended to be a permanent repair, I know I can get new spindles and I am hoping to locate some new links as well over time. Main aim was to get the forks sufficiently stable to be able to fit the front mudguard, make up the mounting brackets and drill the holes for the stays.

I also had a look at the BTH magneto which appears to be in excellent condition. Unfortunately, there is no sign of a spark even after I checked over all the usual problem areas. I will take it down to Paul Lydford at Shaftesbury in due course; not urgent and just as well as Paul is apparently unwell at present. I have also started cleaning up the front wheel. The brake shoes in both wheels are worn to the rivets so eventually I will take them to Friction Services at Keynsham for relining. They like to have the wheels, or at least the brake drum so they can make the linings a good fit so the parts need to be cleaned first.

Saturday 26th August 2017

Today was spent working through the parts again to assess what action was needed. A lot of the stuff is going to be powder coated. Parts in this category have been checked for odd nuts & bolts or other attachments which have been removed and I have a steadily increasing pile of parts ready to be sent to Steve at TPCS next week. Getting them out of the garage will give me more space and when they come back they will go into the loft for protection in the medium term. At this stage it's impossible to say when the actual rebuild can start.

Some parts need more work before they can go for powder coating like the frame/forks and others require painting like the petrol and oil tank, the former because PC is simply not good enough for the bikes crowning glory and the latter because grit and oil don't mix so it I will have to prep this myself first then decide what finish to apply. I have asked a friend who is an ace at painting if he will do the tank for me. If not, I may well send it to a specialist company. Fortunately, it is in very sound condition with only light surface rust on the outside and very clean inside. I have given the wheels a preliminary check and the rear is in what I would call good usable condition albeit black painted. I think all it needs is a good clean and new brake linings. The front has a chrome rim in poor condition but I think is basically sound so I will give it a good clean in due course and then paint it black to match the rear. Later I will probably have the wheels rebuilt with new spokes & rims but right now there are higher priorities

The girder forks are like the Curates egg, good and bad. The good is that they are present and complete and they do not need re-tubing which was originally suggested. However, the links, and spindles are really (unbelievably) bad and the forks cannot be used until they are replaced or repaired. I have found new spindles on the VOC shop website at a reasonable price but I would have to rejoin the club. I think that decision depends on how many other parts I need that can only be obtained via the club shop. They don't stock any of the links or some of the other fork parts so I need to look elsewhere for these anyway. In the interim I have been experimenting with various ways that I could repair the existing parts. I really need the advice of Terry D but he is on holiday in Cornwall and comes back the day we go down so I shall not see him for over two weeks. Needless to say, during today's activities I have identified other missing parts so my list is growing.

Very happy so far, I cannot see why this bike cannot be refurbished to a good standard without need a second mortgage.

Friday 25th August 2017

Today was spent unloading the van and then carefully working through all the boxes identifying all the parts and had and more importantly starting to catalogue the parts that were missing. To help in this process, I scanned and printed in large size the pictures from the spares book. I worked by illustration page collecting together all the bits that were on a specific page then recording the illustration number and description of significant parts that seemed to be missing. I did not bother with ordinary things I can easily source like nuts/bolts/washers unless they were clearly very special. This took me most of the day and in some cases I took pictures of things like the gearbox parts so there was a record of what I had so far. Tonight I created a spreadsheet to record the missing parts list more formally and went through the spares book adding the Velocette part numbers for future reference. The list includes not just the parts that I hope to get from David as part of our original deal, but things I know he does not have and things I plan to buy new regardless

like an exhaust system, tyres, chains etc. The list is already 2 pages long but at least it gives me something to plan around including setting a budget. At the end of the day the pile of bit looked like this:



Thursday 24th August 2017

Last Thursday I went down to Yeovil on a mission to look at and hopefully buy a 1938 MOV Velocette from a chap named David Childs who is a long time friend of John Hills and who had passed on the information about the bike. The bike had been dismantled and stored in various locations for many years which included a house move so finding it all was and continues to be a



challenge. I reckon I have 70-80% of the bike now in my garage with a promise that the majority for other parts will be found and passed over in the not too distant future. A picture of the van when I got home shows how it came, mostly in smallish boxes. David had dismantled checked and cleaned the engine and gearbox so what parts I have are all in excellent condition. Anything dubious he had disposed off but will replace in due course. The cycle parts are cosmetically challenged but this in part is due to his habit of smothering everything with grease. So far the tinware all seems sound and should stand up to shot blasting and powder coating. The frame is good, there is a V5c though I don't have it yet and I found the entry on the DVLA website confirming it is a 1938 bike. Frame, engine and gearbox numbers also check out as 1938 but late in the year so it's probably a '39 model. This is what it should look like when it's finished:

This is a bit like déjà vu. My first VMCC eligible bike was an MSS Velo which I bought in identical Mecanno set form from a chap in Bristol in 1972. However, this one has cost rather more than the £20 I paid for the MSS. Sadly I no longer have the MSS but it served me very well for over 20 years and hopefully this one will also.

